

Applicant : Allen III et al.  
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Attorney's Docket No.: 10887-014002

### REMARKS

In reply to the Office Action of May 17, 2005, the applicants submit the following remarks. Claims 1, 9 and 31-38 have been amended. Claim 39 is new. The applicants respectfully request reconsideration in view of the foregoing amendments and these remarks.

#### Section 103 Rejections

Claims 1, 2, 4-9, 33 and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,452,126 ("Xiao") in view of U.S. Patent No. 6,070,733 ("Osing") and U.S. Patent No. 5,566,832 ("Stückrad") and, presumably U.S. Patent No. 4,578,184 ("Rasmussen"). With respect to Rasmussen, applicants note that while the rejection itself does not name Rasmussen, the Examiner's subsequent remarks refer to Rasmussen. Therefore, applicants presume that the Examiner intended to apply Rasmussen as a secondary reference. The applicants respectfully disagree with the rejection.

Amended claim 1 is directed to a method of separating a polymer mixture. The method includes providing a mixture including polymeric components and adding to the mixture a particulate media. The particulate media includes a polymeric material and a functional additive, wherein the functional additive is incorporated into the polymeric material.

Xiao describes a method of separating mixtures of plastic flakes (col. 3, lines 47-53). Media 60 is added to the plastic pellets to charge components of the mixture (Fig. 3). The media 60 includes a polymer similar or identical to one of the components in the mixture to be separated (col. 4, lines 65-67).

Osing describes a method of removing copper from a mixture of shredder waste (col. 1, lines 37-48). The waste material is reduced to small waste particles, some waste particles having rough surfaces (col. 2, lines 47-54). Magnetic particles are mixed with the waste particles, the magnetic particles sticking to the surface of the rough waste particles.

Stückrad describes a method of sorting plastics that includes plasma treating the plastic to modify the surface of the plastic, thereby changing the wettability of the plastic (col. 2, lines 10-

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19). The plasma treated plastics are aged and separated in a flotation chamber (col. 4, lines 9-18).

Rasmussen describes using halogenated hydrocarbons as liquid separating agents for plastics and nonplastic materials in a sink/float separation (col. 3, lines 39-47).

While Xiao teaches combining mixtures of plastic flakes with a media, Xiao does not describe the media as having a functional additive incorporated into a polymeric material. Osing and Stückrad also fail to describe a particulate media that is added to a mixture, where the particulate media includes a functional additive that is incorporated into a polymeric material. Rather, Osing describes mixing magnetic particles with plastics to cause the magnetic particles to stick to the surface of the plastic. The magnetic particles are not incorporated into a polymeric material. Stückrad modifies the surface of a plastic, rather than incorporating a functional additive into a polymeric material. Rasmussen does not describe a particulate media, but rather is directed to using a liquid separating agent. For at least these reasons, no *prima facie* case of obviousness has been made with respect to claim 1. Claims 2, 4-9 and 38 depend from claim 1 and are similarly not obvious over the combination of Xiao, Osing, Stückrad and Rasmussen.

Amended claim 33 requires adding to a mixture a particulate media for selectively mediating a triboelectric charging of the polymer mixture, the particulate media including a polymeric material and a ferromagnetic additive, wherein the ferromagnetic additive is incorporated into the polymeric material. Because Xiao, Osing, Stückrad and Rasmussen fail to suggest or disclose a particulate media with a ferromagnetic additive incorporated into a polymeric material, no *prima facie* case of obviousness has been made with respect to claim 33.

#### Allowable Subject Matter

The applicants thank the Examiner for finding claims 31-32 allowable and claim 3 and 34-37 merely objected to. The objected to claims are allowable for at least the reasons provided above, because claims 34-37 depend directly or indirectly from claim 1.

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New Claim

Claim 39 is new. No new matter has been added.

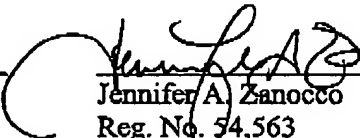
PTO-892

The applicants requested and received by facsimile a copy of the PTO-892, which did not accompany the most recent office action and is not currently in PAIR. The applicants request that an official copy of the PTO-892 be mailed with the next official office communication.

Please apply excess claim fees in the amount of \$25.00 and any other appropriate charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: Aug 16, 2005

  
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